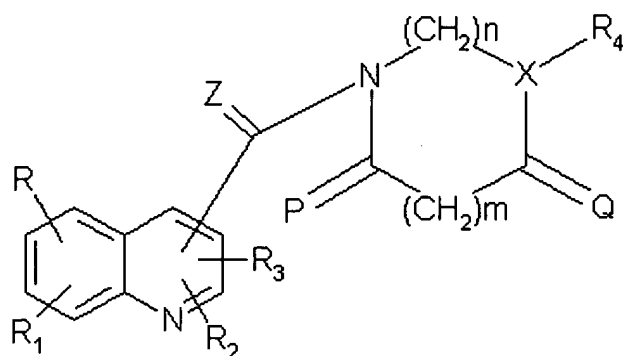


We claim:

1. A quinoline derivatives according to the formula 1

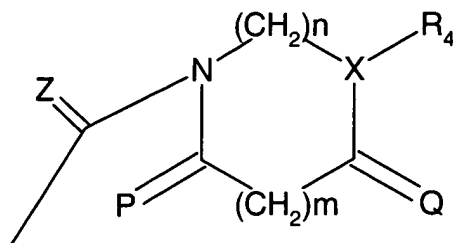


in which

R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> can be attached to any of the quinoline carbon atoms C<sub>2</sub> to C<sub>8</sub>, are the same or different and independently of one another denote hydrogen, straight-chain or branched C<sub>1-8</sub> alkyl, hydroxyl, C<sub>3-7</sub> cycloalkyl, straight-chain or branched C<sub>1-8</sub> alkylcarbonyl, straight-chain or branched C<sub>1-8</sub> alkoxy, halogen, aryl-C<sub>1-8</sub> alkoxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, C<sub>1-8</sub> alkoxycarbonylamino, C<sub>1-6</sub> alkoxycarbonylamino-C<sub>1-8</sub> alkyl, cyano, straight-chain or branched cyano-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, carboxyl, C<sub>1-8</sub> alkoxycarbonyl, C<sub>1-4</sub> alkyl which is substituted by one or more fluorine atoms, carboxy-C<sub>1-8</sub> alkyl or C<sub>1-8</sub> alkoxycarbonyl-C<sub>1-6</sub> alkyl, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> alkynyl, straight-chain or branched cyano-C<sub>1-6</sub> alkyl, aryl, where the aryl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of halogen, straight-chain or branched C<sub>1-8</sub> alkyl, C<sub>3-7</sub> cycloalkyl, carboxyl, straight-chain or branched C<sub>1-8</sub> alkoxycarbonyl, by trifluoromethyl, hydroxyl, straight-chain or branched C<sub>1-8</sub> alkoxy, benzyloxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, cyano, straight-chain or branched cyano-C<sub>1-6</sub> alkyl, where R and R<sub>1</sub> or R<sub>2</sub> and R<sub>3</sub> can form a fused aromatic 6-membered ring with the quinoline ring forming an acridine ring which can be

substituted at any C atom ring position by the radicals R, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> having the meanings mentioned above;

Z is oxygen or sulfur, where the radical



substituted on the quinoline heterocycle can be attached to C atoms C<sub>2-8</sub> of the quinoline ring;

X is nitrogen

n,m are independently of one another a cardinal number between 0 and 3, with the proviso that when n is 0, X is a CR<sub>5</sub>R<sub>6</sub> group wherein R<sub>5</sub> and R<sub>6</sub> are independently of one another hydrogen or C<sub>1-6</sub> alkyl, and that the nitrogen atom adjacent to the C=Z group is substituted by a hydrogen atom or a C<sub>1-6</sub> alkyl group; and the sum of n and m is 3 to 6;

R<sub>4</sub> is a straight-chain or branched C<sub>1-20</sub> alkyl radical which can be saturated or unsaturated, with one to three double and/or triple bonds, and which can be unsubstituted or can optionally be substituted at the same or different C atoms by one, two or more aryl, heteroaryl, halogen, cyano, C=NH (NH<sub>2</sub>), C<sub>1-6</sub> alkoxy carbonylamino, C<sub>1-6</sub> alkoxy, amino, mono-C<sub>1-4</sub> alkylamino or di-C<sub>1-4</sub> alkylamino; C<sub>1-4</sub> alkoxy carbonyl, a C<sub>6-14</sub> aryl radical, C<sub>6-14</sub> aryl-C<sub>1-4</sub> alkyl radical, or a C<sub>2-10</sub> heteroaryl or C<sub>2-10</sub> heteroaryl-C<sub>1-4</sub> alkyl radical which contains one or more heteroatoms N, O and S, where the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and where the C<sub>6-14</sub> aryl or C<sub>2-10</sub> heteroaryl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of straight-chain or branched C<sub>1-8</sub> alkyl, C<sub>3-7</sub> cycloalkyl, halogen, cyano, C<sub>1-6</sub> alkoxy carbonylamino, C<sub>1-6</sub> alkoxy, carboxyl, C<sub>1-8</sub>

alkoxycarbonyl, straight-chain or branched C<sub>1-6</sub> alkyl which is substituted by one or more fluorine atoms, hydroxyl, straight-chain or branched C<sub>1-8</sub> alkoxy, where adjacent oxygen atoms may also be linked by C<sub>1-2</sub> alkylene groups, benzyloxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, aryl, which can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of straight-chain or branched C<sub>1-8</sub> alkyl, C<sub>3-7</sub> cycloalkyl, carboxyl, straight-chain or branched C<sub>1-8</sub> alkoxycarbonyl, trifluoromethyl, hydroxyl, straight-chain or branched C<sub>1-8</sub> alkoxy, benzyloxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, cyano, straight-chain or branched cyano-C<sub>1-6</sub> alkyl;

and their structural isomers and stereoisomers, particularly tautomers, diastereomers and enantiomers, and their pharmaceutically acceptable salts.

2. The quinoline derivative of claim 1, wherein in R, R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub>, said C<sub>1-8</sub> alkylcarbonyl is acetyl, said C<sub>1-8</sub> alkoxy is benzyloxy or phenylethoxy, said fluorine atoms are trifluoromethyl, said C<sub>2-6</sub> alkenyl is allyl, said C<sub>2-6</sub> alkynyl is ethynyl or propargyl, said cyano-C<sub>1-6</sub> alkyl is cyanomethyl, said C<sub>1-8</sub> alkoxy-carbonyl is tert-butoxycarbonyl, and said C<sub>1-8</sub> alkoxy is methoxy or ethoxy, and in R<sub>4</sub> said fluorine atoms are trifluoromethyl, said C<sub>1-8</sub> alkoxy is methoxy or ethoxy, and said C<sub>1-2</sub> alkylene group is a methylene group.

3. The quinoline derivative of formula 1 of claim 1, wherein R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, X, Z, P, Q, n and m have the meanings given in claim 1.

R<sub>4</sub> is a straight-chain or branched C<sub>1-20</sub> alkyl radical which can be saturated or unsaturated, with one to three double and/or triple bonds, and which can be unsubstituted or optionally substituted on the same or different Catoms by one, two or more aryl, heteroaryl, halogen, C<sub>1-6</sub> alkoxy, amino, mono- C<sub>1-4</sub> alkylamino or di-C<sub>1-4</sub> alkylamino;

a phenyl ring or a naphthyl ring, each of which can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of straight-chain or branched C<sub>1-8</sub> alkyl, C<sub>3-7</sub> cycloalkyl, halogen, cyano, C<sub>1-6</sub> alkoxycarbonylamino, C<sub>1-6</sub> alkoxy, carboxyl, C<sub>1-6</sub> alkoxycarbonyl, straight-chain or branched C<sub>1-6</sub> alkyl which is substituted by one or more fluorine atoms, hydroxyl, straight-chain or branched C<sub>1-6</sub> alkoxy, benzyloxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, aryl, which can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of straight-chain or branched C<sub>1-8</sub> alkyl, C<sub>3-7</sub> cycloalkyl, carboxyl, straight-chain or branched C<sub>1-8</sub> alkoxycarbonyl, by trifluoromethyl, hydroxyl, straight-chain or branched C<sub>1-8</sub> alkoxy, benzyloxy, nitro, amino, mono-C<sub>1-4</sub> alkylamino, di-C<sub>1-4</sub> alkylamino, cyano, straight-chain or branched cyano- C<sub>1-6</sub> alkyl;

a 2-, 4-, 5- or 6-pyrimidinyl radical, or a 2-, 4-, 5- or 6-pyrimidinyl- C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O) and the 2-, 4-, 5- or 6-pyrimidinyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y

wherein Y is a C<sub>1-6</sub> alkyl, halogen, nitro, amino, mono-C<sub>1-6</sub> alkylamino, di-C<sub>1-6</sub> alkylamino,

hydroxyl, C<sub>1-6</sub> alkoxy, benzyloxy, carboxyl, C<sub>1-6</sub> alkoxycarbonyl, C<sub>1-6</sub>

alkoxycarbonylamino or C<sub>1-6</sub> alkyl which is mono- or polysubstituted by fluorine, C<sub>6-10</sub>

aryl and C<sub>6-10</sub> aryl-C<sub>1-6</sub> alkyl;

a 3-, 4-, 5- or 6-pyridazinyl radical, or a 3-, 4-, 5- or 6-pyridazinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 3-, 4-, 5- or 6-

pyridazinyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 3-, 5- or 6-pyrazinyl radical, or a 2-, 3-, 5- or 6-pyrazinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 3-, 5- or 6-pyrazinyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y; a 3-, 4-, 5-, 6-, 7-, or 8-cinnolinyl radical, or a 3-, 4-, 5-, 6-, 7-, or 8-cinnolinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-4</sub> alkyl, halogen or oxo (=O), and the 3-, 4-, 5-, 6-, 7-, or 8-cinnolinyl radical can be unsubstituted or mono- or up to pentasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 4-, 5-, 6-, 7-, or 8-quinazolinyl radical, or a 2-, 4-, 5-, 6-, 7 or 8-quinazolinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of hydrogen, C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 4-, 5-, 6-, 7-, or 8-quinazolinyl radical can be unsubstituted or mono- or up to pentasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 3-, 5-, 6-, 7-, or 8-quinoxaliny radical, or a 2-, 3-, 5-, 6-, 7-, or 8-quinoxaliny-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 3-, 5-, 6-, 7-, or 8-quinoxaliny radical can be unsubstituted or mono- or up to pentasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 4-, 5-, 6-, 7-, or 8-phthalazinyl radical, or a 1-, 4-, 5-, 6-, 7-, or 8-phthalazinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by

the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 4-, 5-, 6-, 7-, or 8-phthalazinyl radical can be unsubstituted or mono- or up to pentasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 3-, 4-, 5-, 6-, 7- or 8-quinolyl radical, or a 2-, 3-, 4-, 5-, 6-, 7 or 8-quinolyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 3-, 4-, 5-, 6-, 7- or 8-quinolyl radical can be unsubstituted or mono- or up to hexasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 3-, 4-, 5-, 6-, 7- or 8-isoquinolyl radical, or a 1-, 3-, 4-, 5-, 6-, 7- or 8-isoquinolyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 4-, 5-, 6-, 7- or 8-isoquinolyl radical can be unsubstituted or mono- or up to hexasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 6-, 8- or 9-[9H]-purinyl radical, or a 2-, 6-, 8- or 9-[9H]-purinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 6-, 8- or 9-[9H]-purinyl radical can be unsubstituted or mono- to trisubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 6-, 7- or 8-[7H]-purinyl radical, or a 2-, 6-, 7- or 8-[7H]-purinyl-C<sub>1-4</sub> alkyl radical, wherein the C<sub>1-4</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 6-, 7- or 8-[7H]-purinyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-acridinyl radical, or a 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-acridinyl- $C_{1-6}$  alkyl radical, where the  $C_{1-6}$  alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of  $C_{1-6}$  alkyl, halogen or oxo ( $=O$ ), and the 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-acridinyl radical can be unsubstituted or mono- to octasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-phenanthridinyl radical, or a 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-phenanthridinyl- $C_{1-6}$  alkyl radical, wherein the  $C_{1-6}$  alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of hydrogen,  $C_{1-6}$  alkyl, halogen or oxo ( $=O$ ), and the 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8- or 9-phenanthridinyl radical can be unsubstituted or mono- or up to octasubstituted by the same or different substituents of Y;

a 2-, 3-, 4-, 5- or 6-pyridyl radical where the 2-, 3-, 4-, 5- or 6pyridyl radical can be unsubstituted or mono- or up to tetrasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 3-, 4-, 5- or 6-pyridinyl- $C_{1-6}$  alkyl radical, wherein the  $C_{1-6}$  alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of  $C_{1-6}$  alkyl, halogen or oxo ( $=O$ ), and the 2-, 3-, 4-, 5- or 6-pyridinyl radical can be unsubstituted or mono- or up to tetrasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 3-, 4- or 5-thienyl radical, or a 2-, 3-, 4- or 5-thienyl-  $C_{1-6}$  alkyl radical, wherein the  $C_{1-6}$  alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of  $C_{1-6}$  alkyl, halogen or oxo ( $=O$ ), and the 2-, 3-, 4- or 5-thienyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 4-, or 5-thiazolyl radical, or a 2-, 4-, or 5-thiazolyl C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 4-, or 5-thiazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 3-, 4-, or 5-isothiazolyl radical, or a 3-, 4-, or 5-isothiazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 3-, 4-, or 5-isothiazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 4-, 5-, 6-, or 7-benzothiazolyl radical, or a 2-, 4-, 5-, 6-, or 7-benzothiazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 4-, 5-, 6-, or 7-benzothiazolyl radical can be unsubstituted or mono- or up to tetrasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 2-, 4-, or 5-imidazolyl radical, or a 1-, 2-, 4-, or 5 imidazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 2-, 4-, or 5-imidazolyl radical can be unsubstituted or mono- or up to trisubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 3-, 4-, or 5-pyrazolyl radical, or a 1-, 3-, 4- or 5-pyrazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 3-, 4- or 5-pyrazolyl



radical can be unsubstituted or mono- or up to trisubstituted by the same of different substituents from the group of hydrogen, or Y;

a 1-, 2-, 3-, 4-, or 5-pyrrolyl radical, or a 1-, 2-, 3-, 4-, or 5-pyrrolyl- C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 2-, 3-, 4- or 5-pyrrolyl radical can be unsubstituted or mono- or up to tetrasubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 3-, or 5-[1.2.4]-triazolyl radical, or a 1-, 3-, or 5-[1.2.4]-triazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of hydrogen, C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 3-, or 5-[1.2.4]-triazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from Y;

a 1-, 4-, or 5-[1.2.3]-triazolyl radical, or a 1-, 4-, or 5-[1.2.3]-triazolyl- C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 4-, or 5-[1.2.3]-triazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1- or 5-[1H]-tetrazolyl radical, or a 1-, or 5-[1H]-tetrazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, or 5-[1H]-tetrazolyl radical can be unsubstituted or substituted by hydrogen, or Y;

a 2- or 5-[2H]-tetrazolyl radical, or a 2- or 5-[2H]-tetrazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different

substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2- or 5-[2H]-tetrazolyl radical can be unsubstituted or substituted by hydrogen, or Y;

a 2-, 4-, or 6-[1.3.5]-triazinyl radical, or a 2-, 4-, or 6-[1.3.5]-triazinyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of hydrogen, C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 4-, or 6-[1.3.5]-triazinyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 2-, 4-, or 5-oxazolyl radical, or a 2-, 4-, or 5-oxazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 2-, 4-, or 5-oxazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 3-, 4-, or 5-isoxazolyl radical, or a 3-, 4-, or 5-isoxazolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 3-, 4-, or 5-isoxazolyl radical can be unsubstituted or mono- or disubstituted by the same or different substituents from the group of hydrogen, or Y;

a 1-, 2-, 3-, 4-, 5-, 6- or 7-indolyl radical, or a 1-, 2-, 3-, 4-, 5-, 6 or 7-indolyl-C<sub>1-6</sub> alkyl radical, wherein the C<sub>1-6</sub> alkyl radical can be unsubstituted or mono- or polysubstituted by the same or different substituents from the group of C<sub>1-6</sub> alkyl, halogen or oxo (=O), and the 1-, 2-, 3-, 4-, 5-, 6- or 7-indolyl radical can be unsubstituted or mono- or up to hexasubstituted by the same or different substituents from the group of hydrogen, or Y.

4. The quinoline derivative of claim 3, wherein in  $R_4$  said fluorine atoms are trifluoromethyl, and said  $C_{1-8}$  alkoxy is methoxy or ethoxy.

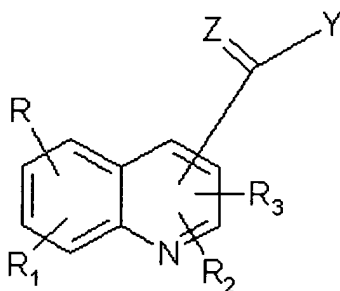
5. The quinoline derivative of claim 1, wherein  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $X$ ,  $Z$ ,  $P$ ,  $Q$ ,  $n$  and  $m$  have the meanings given above, and  $R_4$  is phenyl which is unsubstituted or substituted by one to five the same or different  $C_{1-6}$  alkoxy groups, where adjacent oxygen atoms can also be linked by  $C_{1-2}$  alkylene groups.

6. The quinoline derivative of claim 1, wherein  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $X$ ,  $Z$ ,  $P$ ,  $Q$ ,  $n$  and  $m$  have the meanings given above and  $R_4$  is 3,5-dimethoxyphenyl.

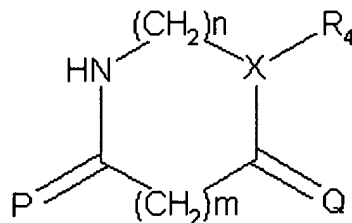
7. The quinoline derivative of claim 1, wherein  $R_4$  has the meanings given above,  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$  each is hydrogen,  $Z$  is an oxygen atom,  $X$  is a nitrogen atom,  $P$  and  $Q$  are each two hydrogen atoms - as in  $-CH_2-$ ,  $m$  is zero, and  $n$  is 3.

8. The quinoline derivative of claim 1, wherein  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$  are each a hydrogen atom,  $Z$  is an oxygen atom,  $X$  is a nitrogen atom,  $P$  and  $Q$  each are two hydrogen atoms as in  $-CH_2-$ ,  $m$  is zero,  $n$  is 3, and  $R_4$  is a 3,5-dimethoxyphenyl radical.

9. A process for preparing the quinoline derivative of claim 1, which comprises reacting a quinoline carboxylic acid of formula (2)



in which  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$  have the meanings given above,  $Z$  is an oxygen or sulfur atom, and  $Y$  is a leaving group with an amine of formula (3)



in which  $R_4$ , X, P, Q, m and n have the meanings given above, optionally in the presence of diluents and auxiliaries.

10. The process of claim 9, wherein said leaving group is halogen, hydroxyl,  $C_{1-6}$  alkoxy, -O-tosyl, -O-mesyl, or imidazolyl.

11. The process of claim 10, wherein said  $C_{1-6}$  alkoxy is methoxy or ethoxy.

12. A therapeutic method for treating tumors in mammals, which comprises administering to a mammal in need therefor at least one quinoline derivative of claim 1 in a tumor treatment effective dose.

13. A medicament which comprises as active ingredient at least one quinoline derivative according of claim 1, together with conventional pharmaceutically acceptable auxiliaries, additives and carriers.

14. The pharmaceutically acceptable acid addition salt of the quinoline derivative of claim 1, when formed with one of the acids hydrochloric acid, hydrobromic acid, sulfuric acid, phosphoric acid, fumaric acid, succinic acid, lactic acid, citric acid, acetic acid, tartaric acid, malic acid, maleic acid, embonic acid, malonic acid, trifluoroacetic acid, metanesulfonic acid, and sulfoacetic acid.